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1.2 IN THE CLAIMS:

1. (Original) An adeno-associated viral vector comprising a first polynucleotide comprising a first nucleic acid segment that encodes an AAV capsid protein that comprises an exogenous amino acid sequence that binds to a mammalian lipoprotein receptor.
2. (Original) The vector of claim 1, wherein said capsid protein is a Vp1 or a Vp2 capsid protein.
3. (Original) The vector of claim 1, wherein said exogenous amino acid sequence binds to a mammalian low-density lipoprotein (LDL) or very low density lipoprotein (VLDL) receptor.
4. (Original) The vector of claim 1, wherein said exogenous amino acid sequence comprises the sequence of any one of SEQ ID NO:1 to SEQ ID NO:21.
5. (Canceled)
6. (Original) The vector of claim 1, wherein said exogenous amino acid sequence comprises the sequence of any one of SEQ ID NO:1 to SEQ ID NO:20, and further comprises the sequence of SEQ ID NO:21.

7. (Original) The vector of claim 1, wherein said exogenous amino acid sequence comprises the sequence of any one of SEQ ID NO:22 to SEQ ID NO:31.
8. (Original) A recombinant adeno-associated viral expression system comprising:
 - (a) a first polynucleotide comprising a first nucleic acid segment that encodes an AAV capsid protein that comprises an exogenous amino acid sequence that binds to a mammalian lipoprotein receptor; and
 - (b) a second polynucleotide comprising a second nucleic acid segment that encodes an expressed therapeutic agent.
9. (Canceled)
10. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said exogenous amino acid sequence binds to a mammalian VLDL or LDL receptor.
11. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said exogenous amino acid sequence comprises the sequence of any one of SEQ ID NO:1 to SEQ ID NO:20.
12. (Original) The recombinant adeno-associated viral expression system of claim 11, wherein said exogenous amino acid sequence further comprises the sequence of SEQ ID NO:21.

13. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said exogenous amino acid sequence comprises the sequence of any one of SEQ ID NO:22 to SEQ ID NO:31.
14. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said first and said second polynucleotides are comprised within a single rAAV vector:
15. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said first and said second polynucleotides are comprised on distinct rAAV vectors:
16. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said second polynucleotide further comprises a promoter operably linked to said second nucleic acid segment, wherein said promoter expresses said therapeutic agent.
17. (Canceled)
18. (Canceled)
19. (Currently Amended) The recombinant adeno-associated viral expression system of claim ~~16~~18, wherein said promoter is a mammalian β -actin promoter.

20. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said second polynucleotide further comprises an enhancer sequence operably linked to said second nucleic acid segment.
21. (Canceled)
22. (Currently Amended) The recombinant adeno-associated viral expression system of claim 20~~21~~, wherein said enhancer sequence comprises a CMV enhancer.
23. (Original) The recombinant adeno-associated viral expression system of claim 8, wherein said second nucleic acid segment further comprises a post-transcriptional regulatory sequence.
24. (Original) The recombinant adeno-associated viral expression system of claim 23, wherein said regulatory sequence comprises a woodchuck hepatitis virus post-transcription regulatory element.
- 25.-27. (Canceled)
28. (Currently Amended) The recombinant adeno-associated viral expression system of claim 8~~9~~, wherein said therapeutic agent is an ~~polypeptide is selected from the group~~

~~consisting of α_1 -antitrypsin (AAT) polypeptide, a growth factor, an interleukin, an interferon, an anti-apoptosis factor, and a cytokine.~~

29. (Canceled)

30. (Original) A recombinant adeno-associated virus virion comprising the vector of claim 1, or the recombinant adeno-associated viral expression system of claim 8.

31. (Canceled)

32. (Original) A plurality of adeno-associated viral particles comprising the vector of claim 1 or the recombinant adeno-associated viral expression system of claim 8.

33. (Original) A mammalian cell comprising the vector of claim 1, or the recombinant adeno-associated viral expression system of claim 8.

34.-42. (Canceled)

43. (Currently Amended) A kit comprising:

(a) the adeno-associated viral vector of claim 1, or the recombinant adeno-associated viral expression system of claim 8, ~~the virion of claim 30, the viral particles of claim 32, the cell of claim 33, or the composition of claim 35;~~ and

(b) instructions for using said kit.

44. (Original) A method for targeting an AAV virion or viral particle to a mammalian cell that comprises a cell-surface lipoprotein receptor, said method comprising the step of: providing to a population of cells an AAV virion or viral particle that comprises the vector of claim 1, or the recombinant adeno-associated viral expression system of claim 8, in an amount and for a time effective to target said virion or said viral particle to cells of said population that express said cell-surface lipoprotein receptor.
45. (Original) A method for targeting an expressed therapeutic agent to a mammalian cell that comprises a cell-surface lipoprotein receptor, said method comprising the step of providing to a mammal that comprises a population of said cells an amount of the recombinant adeno-associated viral expression system of claim 8.
46. (Canceled)
47. (Currently Amended) A method for preventing, treating or ameliorating the symptoms of a disease, dysfunction, or deficiency in a mammal, said method comprising administering to said mammal the virion of claim 30, or the plurality of adeno-associated viral particles of claim 32, in an amount and for a time sufficient to treat or ameliorate the symptoms of said disease, dysfunction, or deficiency in said mammal.
- 48.-51. (Canceled)